



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/770,832	01/25/2001	Millind Mittal	6939-5	7287
7590 04/05/2005 Marger Johnson & McCollom, P.C. 1030 SW Morrison Street Portland, OR 97205			EXAMINER SHEW, JOHN	
			ART UNIT 2664	PAPER NUMBER

DATE MAILED: 04/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

6

Office Action Summary	Application No.		Applicant(s)	
	09/770,832		MITTAL ET AL.	
	Examiner		Art Unit	
	John L Shew		2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20-37,44 is/are allowed.
- 6) ☒ Claim(s) 1-19,38 and 40 is/are rejected.
- 7) ☒ Claim(s) 39,41-43,45-47 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-19, are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 1, cites "ingress flows that identify packets having similar Quality of Service processing requirements" is a limitation not supported in the written description. The written description does not support processing based on Quality of Service. The written description discloses ingress queuing based on Class Of Service.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 38, 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Merchant et al. (Patent number 6584106) in view of Ben Nun et al. (Patent number 6831893).

Claim 38, Merchant teaches a memory hub (FIG. 1) referenced by Integrated Multiport Switch 12a, comprising a first interface for receiving packets or packet fragments (FIG. 3A) referenced by Output Queue 68a receiving packets, a second interface for outputting the packets or packet fragments (FIG. 3A) referenced by Dequeue Logic 76 and MAC Port 1 70c which transmits the data packet, and a controller that queues the packets or packet fragments in a memory according to the port vector (column 5 lines 30-56) referenced by Output Queue Write Side Mgmt Port 68a which uses frame pointers associated to ports to fetch data from memory for management processing.

Art Unit: 2664

Merchant teaches the controller receives control signals identifying the priority for queuing the packets and receives control signals for identifying the priority for dequeuing the packets (FIG. 3A, column 7 lines 29-58) referenced by Output Queue Write Side Mgmt Port 68a receiving control signals for queuing of data packets and Dequeuing Logic 76 receiving control signals for dequeuing of data packets. Both controllers use frame pointers locate and transfer data packets to and from external memory. Merchant does not teach flow ids.

Ben Num teaches classification of packets to flow ids (FIG. 2, FIG. 3, column 7 lines 37-39, column 12 lines 15-34) referenced by the classifier 260 evaluation of a flow id 320 field to add to header NMCHDR.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the classification method of Ben Num to the backbone switch forwarding scheme of Merchant for the purpose of association of data packets with a particular data flow.

Claim 40, Merchant teaches wherein the first interface receives the packets or packet fragments from a switch fabric (FIG. 3A, FIG. 3B) referenced by the Output Queue 68a receiving packets from the Port Vector FIFO 56 of the switch fabric, and the second interface outputs packets to an egress packet processor (FIG. 3A, column 5 lines 30-56) referenced by the Dequeuing Logic 76 which fetches data from external memory based on the port vector.

Allowable Subject Matter

2. Claims 20-37, 44 are allowed.

Claims 39, 41-43, 45-47 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

In consideration of arguments pertaining to claim 38, Merchant does not teach a flow id. The queuing method is determined by the port vector. However, Ben Nun teaches a classification system for a flow id. It is obvious to incorporate such a system to queue based on flow id in conjunction to a port vector. The arguments concerning a controller has been considered, but is not persuasive. The function provided by the Output Queue

Write Side Mgmt Port 68a and Dequeueing Logic 76 does provide control of the queuing and dequeuing of data packets.

Citation of Prior Art

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Patent number 6738352, Yamada et al. teaches a transfer destination determining process apparatus.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John L Shew whose telephone number is 571-272-3137. The examiner can normally be reached on 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 571-272-3134. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

js

A handwritten signature in black ink, appearing to be 'W. H. K.', with a long horizontal flourish extending to the right.